UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/724,830	11/28/2000	Dipayan Gangopadhyay	08111-017002	7731

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EXAMINER
DAS, CHAMELI

ART UNIT	PAPER NUMBER
2122	

DATE MAILED: 02/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/724,830	GANGOPADHYAY ET AL
	Examiner	Art Unit	
	C.DAS	2122	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _28 November 2000_.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-7_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) _4_ is/are allowed.

6)☒ Claim(s) _1-3 and 5-7_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

1.   Claims 1-7 are pending.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1- 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Lindhorst et al (Lindhorst), US 6,337,696 and further in view of Doyle et al (Doyle),

US 4,928,247

Regarding claim 1, Lindhorst discloses:

- a computer system including a display device, a data storage device and a user

interface device (col 2 lines 40-44, col 12 lines 55-60)

- a graphical tool which a user operates through the user interface device to create a

graphical representation ... display device (col 12 lines 40-50, col 4 lines 3-17),

graphical symbol is the shown in (Abstract, lines 5-6).

- Lindhorst does not specifically disclose transactions and events may be of an

ansynchronous nature. However, Doyle dislcoses transactions and events may be of

an ansynchronous nature (Doyle, abstract, col 1 lines 15-20). Therefore, it would have

been obvious to one of the ordinary skill in the art at the time of invention was made to

incorporate the teaching of Doyle into the method of Lindhorst. The modification would

be obvious because one of the ordinary skill in the art would be motivated to provide a

correlated graphics structure data and commands and window data to the graphics

processing components efficiently.

Regarding claim 2 and 3, Lindhorst discloses:

- a computer system including a display device, a data storage device and a user

interface device (col 2 lines 40-44, col 12 lines 55-60).

- a code generator which generates computer code in response to information ...

graphical representation (Lindhorst, abstract, col 1 lines 13-19, col 4 lines 3-15).

- computer code is stored on the data storage device and execute... computer

system (col 11, lines 34-35, col 11 lines 45-47, col 5 lines 56-60, col 24 lines 56-60 and

col 24 lines 63-65).

- computer system to perform one or more operations which emulates... representation

(Lindhorst, col 24 lines 15-27).

- Lindhorst does not specifically disclose a traversal tool to traverses the

graphical representation and information received from the traversal tool. However,

Doyle dislcoses to traverses the graphical representation and information received

from the traversal tool. (Doyle, Abstract, col 2 lines 65-68 and col 3 lines 1-5, col 14

lines 18-27). Therefore, it would have been obvious to one of the ordinary skill in the art

at the time of invention was made to incorporate the teaching of Doyle into the method

of Lindhorst. The modification would be obvious because one of the ordinary skill in the

art would be motivated to provide each of the graphics application views the graphics

processing subsystem as its own and is able to be executed with a most efficient

utilization of the system components.

Regarding claim 5, Lindhorst discloses:

- generating a computer code to represent functions and executions flow with the process (Lindhorst, Abstract, Fig 3, item 140 and 145, col 1 lines 13-18)

- where the computer code is executable on a computer system (col 24 lines 58-63)

- Lindhorst does not specifically disclose a traversal tool to traverses the graphical representation and information received from the traversal tool. However, **Doyle dislcoses** to traverses the graphical representation and information received from the traversal tool. (Doyle, Abstract, col 2 lines 65-68 and col 3 lines 1-5, col 14 lines 18-27). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of invention was made to incorporate the teaching of Doyle into the method of Lindhorst. The modification would be obvious because one of the ordinary skill in the art would be motivated to provide each of the graphics application views the graphics processing subsystem as its own and is able to be executed with a most efficient utilization of the system components.

4.   Claims 6 –7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lindhorst et al (Lindhorst), US 6,337,696 and further in view of Doyle et al (Doyle), US 4,928,247 and the background section of the present application.

Regarding claim 6, Lindhorst discloses:

- creating a graphical representation of the process where functions within the process are represented as action nodes (Lindhorst, col 4 lines 3-12, col 3 lines 1-12, col 2 lines 40-50)

- events within the process are represented as event link (Lindhorst, col 2 lines 40-55, abstract)

- generating the computer code ... computer system (Lindhorst, Abstract, Fig 3, item 140 and 145, col 1 lines 13-18)

- where the computer code is executable on a computer system (col 24 lines 58-63)

- Lindhorst does not specifically disclose a traversal tool to traverses the graphical representation and information received from the traversal tool. However, **Doyle dislcoses** to traverses the graphical representation and information received from the traversal tool. (Doyle, Abstract, col 2 lines 65-68 and col 3 lines 1-5, col 14 lines 18-27).

Lindhorst dislcoses different actions of the object event (col 3 lines 15-27) and all the elements are marked such as "name" or "ID" (col 7 lines 20-45), these name can be any names. Lindhorst does not specifically disclose the specific actions like parallel, sychronization, repetitive actions of the event. Doyle discloses the synchronization. However, the background section of the application disclose the parallel and repetitive actions of the events (page 2,lines 6-11).   The modification would be obvious because one of the ordinary skill in the art would be motivated to group the different actions of the processes or nodes in the system.

Neither Lindhorst nor the background section disclose to mark the nodes as "split node", "join node" or "repetition node". Official notice is taken to name the nodes as "split node", "join node" or "repetition node". The modification would be obvious because one of the ordinary skill in the art would be motivated to identify the nodes according to their actions.

Regarding claim 7, Lindhorst discloses:

- creating a graphical representation... event links (Lindhorst, col 4 lines 3-12, col 3 lines 1-12, col 2 lines 40-50, col 2 lines 40-55, abstract, Abstract, Fig 3, item 140 and 145, col 1 lines 13-18).

Lindhorst discloses the error event (col 8 lines 55-58) and name the event according to their actions (col 7 lines 20-45), these name can be any names. Lindhorst does not disclose independent events. However, Official notice is taken in independent events and named the node as independent nodes. The modification would be obvious because one of the ordinary skill in the art would be motivated to identify the nodes according to their actions.

For all other limitations see the rejection of claim 6 above.

Allowable Subject Matter

5.   Claim 4 is allowable.

6.   The prior art made or record and not relied upon is considered pertinent to applicant's disclosure.

TITLE: Unboundedly parallel simulations, US 5375074 A (independent event)

TITLE: Point-to-point communication network and method and adapter for virtualizing a LAN system, US 5621726 (independent event)

TITLE: System and method for facilitating generation and editing of event handlers, US 6337696 B1

TITLE: Apparatus for and method of displaying running of modeled system designs, US 5852449 A (split, join nodes)

TITLE: Computer based workstation for development of graphic representation of computer programs, US 4860204 A

TITLE: Method and apparatus for the continuous and asynchronous traversal and processing of graphics data structures, US 4928247 A

TITLE: Graphics system for automatic computer code generation, US 5187788 A

TITLE: Image generator using a graphical flow diagram with automatic generation of output windows, US 5490246 A

TITLE: Technique for test coverage of visual programs, US 6192511 B1

TITLE: Generation of firmware code using a graphic representation, US 5999730 A

TITLE: Method and system for graphically indicating a valid input within a graphical user interface, US 6337702 B1

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Chameli Das whose telephone number is 703-

305-1339.

The examiner can normally be reached on Monday-Friday from 7:00 A.M. to

3:30 P.M.   If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor Tuan Dam can be reached at 703-305-4552. The fax number for

this group is (703)872-9306.

An inquiry of general nature or relating to the status of this application or

proceeding should be directed to the group receptionist whose telephone number is

703-305-9600.

Chameli C. Das
Primary Patent Examiner
Art Unit 2122
2/8/04